

Application Serial No: 10/550,836
Responsive to the Office Action mailed on: October 3, 2007

REMARKS

This Amendment is in response to the Office Action mailed on October 3, 2007. Claims 1-3 and 5 are amended editorially. Claim 7 is new and is supported, for example, in the specification on page 20, line 28-page 21, line 15 and Figure 12. No new matter is added. Claims 1-3, 5 and 7 are pending.

§112, Second Paragraph:

Claims 1-3 and 5 are rejected as being indefinite. In particular, the rejection asserts that the phrase "may contact" in claims 1-3 and 5 is unclear. Claims 1-3 and 5 are amended to remove the word "may". Claims 2 and 5 are further rejected because these claims require a "second protrusion" without a "first protrusion". Claims 2 and 5 are amended to remove the word "second". Accordingly, claims 1-3 and 5 are no longer indefinite. Withdrawal of this rejection is requested.

§103 Rejections:

Claims 1-3 and 5 are rejected as being unpatentable over Mitsuhsa (JP 2001-183722) in view of Nomura (US Patent No. 5,765,048). In order to expedite the prosecution of this matter, the following rejection is extended to new claim 7 to the extent the rejection may apply. This rejection is traversed.

With respect to claims 1-3, nowhere does Mitsuhsa or Nomura teach or suggest a first protrusion provided on at least one side in an optical axis direction of a portion of the demating prevention groove with which the demating prevention pin mates when the driving frame is advanced. An advantage of these features is that when the collapsible lens barrel is dropped, impact is allowed to act on the demating prevention groove and not on the cam groove, thereby reducing the impact on the cam groove and the cam pin.

The rejection relies on Nomura for teaching these features. However, Nomura fails to teach or suggest a demating prevention pin and a demating prevention groove. In contrast, Nomura merely provides a bumper surface (17m) provided on the side of the imaging element in the optical axis direction of the cam groove. As claims 1-3 include a cam groove in addition to the demating prevention groove, the bumper surface (17m)

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does not correspond to the first protrusion provided to the demating prevention groove of claims 1-3.

Mitsuhisa does not overcome these deficiencies. Mitsuhisa drives a second lens (12) and a third lens (13) while allowing cam pins (12c, 13c) to move along cam sides (7b, c), respectively. Nowhere does Mitsuhisa teach or suggest a demating prevention pin and a demating prevention groove. Accordingly, the combination of Mitsuhisa and Nomura cannot teach or suggest a first protrusion provided on at least one side in an optical axis direction of a portion of the demating prevention groove with which the demating prevention pin mates when the driving frame is advanced, as required by claims 1-3. For at least these reasons claims 1-3 are not suggested by the combination of Mitsuhisa and Nomura.

With respect to claims 5 and 7, nowhere does Mitsuhisa or Nomura teach or suggest a protrusion provided on at least an object side in an optical axis direction of a portion of the cam groove with which the cam pin mates when the driving frame is retracted. Thus, the relationship between the cam pin and the cam groove is different when the driving frame is retracted and when the driving frame is not retracted. An advantage of these features is that when the collapsible lens barrel is dropped causing impact from the side of the lens group to act on the camera main body, the protrusion prevents the cam pin from demating from the cam groove.

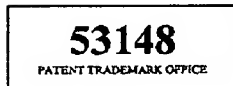
The rejection relies on Mitsuhisa for teaching these features. However, Mitsuhisa merely drives the second lens (12) and the third lens (13), while allowing cam pins (12c, 13c) to move along the cam sides (7b, c), respectively. Nowhere does Mitsuhisa disclose or suggest a protrusion provided on at least an object side in an optical axis direction of a portion of the cam groove with which the cam pin mates when the driving frame is retracted.

Nomura does not overcome these deficiencies. Nomura merely provides a bumper surface (17m) provided on the side of the imaging element. In contrast, the protrusion of claims 5 and 7 is provided on at least an object side in an optical axis direction of a portion of the cam groove with which the cam pin mates when the driving frame is retracted. Nowhere does Nomura contemplate these features. For at least these reasons claims 5 and 7 are not suggested by the combination of Mitsuhisa and Nomura.

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Conclusion:

Applicants respectfully assert that claims 1-3, 5 and 7 are in condition for allowance. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.



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Respectfully submitted,

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